

XVI.—THE NESTING HABITS OF THE NORTHERN GREY
HORNBILL (*LOPHOCEROS BIROSTRIS*)

I discovered a nest of the above in a large hole in a mango tree at the south end of a fair sized mango grove, enclosed by a high wall. This nest was difficult to discover, as the male bird was very wary and would not approach anywhere near when I was about. The hole too, was on the upperside of a stunted bough, and could not be seen from the ground as it was some 25 or 30 feet high. It was an ideal place for a nest of the kind. On May 23 I had a long ladder brought and mounting this I discovered that my suspicions were correct as the entrance to the large hole was packed with ordure on both sides, as is the custom with this bird—the slit in the centre was about $\frac{1}{2}$ " wide and about 4" long. I opened up the entrance, and putting in my arm to beyond my elbow discovered two eggs which were lying on decayed pieces of bark, etc. With the exception of a few feathers (evidently the bird's own) there was no attempt at making a nest. The bird disappeared up the large cavity inside the tree, and I could not reach her at all. The eggs when blown were quite fresh. I came away leaving the hole open and the bird inside, thinking she would now forsake the nest, but, on visiting the place again on June 2, I discovered that the hole had been closed in again as formerly. I had it opened up again thinking, she might have laid a second time, but on this occasion there were no eggs. On June 6 and 16 I paid it other visits thinking the bird must surely have forsaken the hole after so many upsets of the domestic arrangements, but no, she had packed herself in again as before. I opened the nest twice again thinking, that she must have laid by now, or, perhaps that she had laid farther up the cavity somewhere; I had the hole opened up again and then the old bough sawn off to enable me to make a thorough search, which I did, but no eggs were forthcoming, nor was there any ledge farther up the tree where she could have deposited the eggs. I got the female out of the nest, and discovered later that there was no sign of her laying at all in the near future. It surprised me to discover how quickly she could plaster up the hole again which was large enough to let my arm and hand in easily as such a lot of ordure was required for the purpose, and what her object was in staying in the hole so long when her nest had been so frequently disturbed would be interesting to find out, particularly as she hadn't laid a second time, nor were there any signs of her doing so. Perhaps this account of the only Hornbill we seem to have in the Punjab may prove of interest to some of the members of the Bombay Natural History Society, and if any of them can throw any further light on this interesting bird's habits and intentions, one would be glad to hear of similar experiences of others for reference and comparison.

The bird is rather rare here and the nest hard to find. I have been fortunate in discovering two nests with fresh eggs in them this season but the nests were eighteen miles apart. You'll notice

that I opened this one up no less than four times, and I suppose the bird would have carried on still further if I hadn't cut the nest about so badly.

She was in fairly good condition, and only moulting of the primaries had taken place and new quills had been formed, and these were about half-developed I should say. The old feathers were all in the nest. In both instances when I took the eggs from the nest of a Hornbill, the male bird didn't put in an appearance at all nor did the female put up any kind of a fight with the exception of pecking at one's finger once or twice. She did not screech at all either. If I get a chance again I will make closer observations next time.

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BATALA,
GURDASPUR DIST.,
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June 20, 1928.

[General Osborne, in a note published in vol. xiv, p. 715 of the Journal, indicated that the peculiar nesting habits of the Hornbills was due to the fact that the sitting hen moulted all the quill feathers of her wings and tail during the period of her incarceration. Thus in the security of her walled-in nest she was protected and concealed at a time when she would have been otherwise at a great disadvantage. In his examination of the nest of a Great Indian Hornbill, in a tree in the Kanara forest, containing a young one, Mr. Tuggersee discovered a quantity of tail and wing quills at the bottom of the hollow, which were shed by the sitting bird. Her condition when she arrived in Bombay a few days after capture showed that flight would have been a practical impossibility till the primary feathers of her wings, which were just sprouting, had matured. The rebuilding of the protecting wall after the eggs had been removed, as observed by Mr. Finlay is an interesting point. A possible explanation is that the incubating instinct being still active, the bird continued to sit in spite of the fact that her eggs were removed. There are several instances on record of birds brooding in empty nests. Again it may be suggested that the bird's reluctance to leave the nest was an instinctive disinclination to abandon the seclusion of her retreat until her powers of flight were fully restored. EDS.]

XVII.—OCCURRENCE OF THE XMAS ISLAND FRIGATE-
BIRD (*FREGATA ANDREWSI*) ON THE WEST COAST
OF INDIA

Among the contributions to the Museum recently received by the Society is the skin of an Xmas Island Frigate Bird or Man-of-War Bird (*Fregata andrewsi*) from Quilon, Travancore. The specimen was presented by Mr. L. A. Lampard. It was caught in a fishing net in a rough sea at the onset of the monsoon. 'When being examined,'